TECHNOLOGIES IN TRANSITION: ANALYTICAL RESEARCH ON FINAL NEOLITHIC/EARLY BRONZE AGE POTTERY FROM KEPHALA PETRAS, EAST CRETE, GREECE

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The investigation of provenance and technology of ancient ceramics using of a broad array of analytical techniques has been a common theme in archaeological studies during the last two decades. This integrated approach opens new possibilities in the exploration of issues such as pottery traditions, technological choices, and human agency. These issues are of particular importance when dealing with transitional phases in which technological changes are also discernible, as in the case of the transition from the Neolithic to the Bronze Age. The aim of this presentation is to discuss the results of a study combining thin section petrography and scanning electron microscopy for the understanding of a ceramic assemblage from the settlement at Kephala Petras in Sitia, East Crete, dated to the Neolithic - Bronze Age transition (c. 3000 BC).

The available architectural and ceramic evidence shows two main phases of occupation dated to the Final Neolithic (FN) and the Early Bronze Age 1 (EBA1) period respectively. The pottery of the earlier phase (FN) has close affinities with sites outside Crete, namely the Dodecanese. However, it is questionable whether such typological similarities correspond with population movements, as traditional views imply. The application of thin section petrography provided valuable insights in this respect by identifying the local and imported components of the assemblage.

With regard to technological issues, the macroscopic study of the Kephala pottery indicated possible changes in the ceramic technology from the earlier (FN) to the later (EBA1) period, seen especially in the firing techniques. These changes become of essence considering that the same site produced the earliest evidence for metallurgy in Crete, namely copper smelting. Within this context, the integrated approach combining thin section petrography and scanning electron microscopy contributed significantly in identifying the technological characteristics of each period, defining the

advances from the one period to the other, and investigating the possible influence of the new pyrotechnology (metallurgy).